

### 8.1.3.j *Carroll Canyon (D 5-8)*

#### Site Description and Existing Conditions

Carroll Canyon (D 5-8) is a 19.1 acre site located at the southern terminus of Parkdale Avenue in Mira Mesa. A portion of this site (14.4 acres) was conserved as mitigation for the Bob Baker development (LDR No. 88-0612) pursuant to the requirements of U.S. Fish and Wildlife Service Biological Opinions 1-1-82-F-108 and 1-1-82-F-108R, and the remaining 4.7 acres were purchased by the City of San Diego with money from the Vernal Pool Preservation Fund. It is dedicated open space and is owned by the City of San Diego Park and Recreation Department. Carroll Canyon is within the MHPA and surrounding land uses include transportation, residential development and open space.

One hundred nineteen vernal pools (4,803.62 m<sup>2</sup> of combined basin area [1.19 acres]) were mapped at Carroll Canyon in 2003. The pools at Carroll Canyon are of natural origin and are underlain by Redding gravelly loam. Upland areas are dominated by chamise chaparral. This is the only area where *E. aristulatum*, *N. fossalis*, *P. abramsii* and *B. sandiegonensis* occur at a single site. It is also one of two sites where *N. fossalis* occurs north of Otay Mesa.

This site was preserved and a maintenance fund established as mitigation for the Bob Baker development (LDR No. 88-0612). Fencing and maintenance were required at the time of preservation. Due to the location of residential developments next to the preserve, impacts such as invasive species, litter and illegal trespass have been reported at infrequent intervals. The site has been maintained per the requirements of USFWS BOs 1-1-82-F-108 and 1-1-82-F-108R and the *Vernal Pool Management Plan* (City of San Diego, 1996). Carroll Canyon was identified as necessary to stabilize populations of *E. aristulatum* and *P. abramsii* by the adopted *Recovery Plan for Vernal Pools of Southern California* (USFWS, 1998).

#### Threats

##### *Development*

This site is preserved and dedicated as open space.

##### *Invasive Species*

Invasive species do not appear to be a major threat; however, it is adjacent to residential communities, and ornamental species may colonize the preserve.

##### *Edge Effects*

The Carroll Canyon vernal pools are adjacent to residential development. Impacts occur from litter, unauthorized access, dumping, invasive species, etc.; however, these are somewhat minimized by perimeter fencing.

##### *Fire and Fire Suppression*

In 1992, fire and fire suppression activities impacted basins at Carroll Canyon. Restoration details and advance planning efforts with the San Diego Fire Department were included in the report, *Further recommendations for management of the Carroll Canyon Vernal Pool site* (Zedler, 1992).

### Required Management Activities

Based on the requirements of U.S. Fish and Wildlife Service Biological Opinion 1-1-82-F-108R and City of San Diego requirements for their acquisition area, the following actions and regulations are required as part of the Carroll Canyon Vernal Pool Preserve Maintenance and Monitoring Program. These actions are conducted and enforced by the City of San Diego Park and Recreation Department's Open Space Division.

- Maintenance of existing fences to restrict illegal trespass
- Public access to the preserve is prohibited
- Signs shall be posted to indicate preserve boundaries and prohibit trespass
- Annual removal of trash and dumping materials
- Restoration of any areas damaged by illegal or legal (i.e. fire-fighting) activities
- Four site inspections per year
- Maintenance of existing fire breaks
- Consultation with qualified biologist prior to alteration or expansion of fire breaks
- The use of herbicides and pesticides is prohibited within Preserve boundaries

Management activities have included fence repair, code compliance issues, removal of fill in vernal pool basins, litter collection and removal of *Arundo donax*.

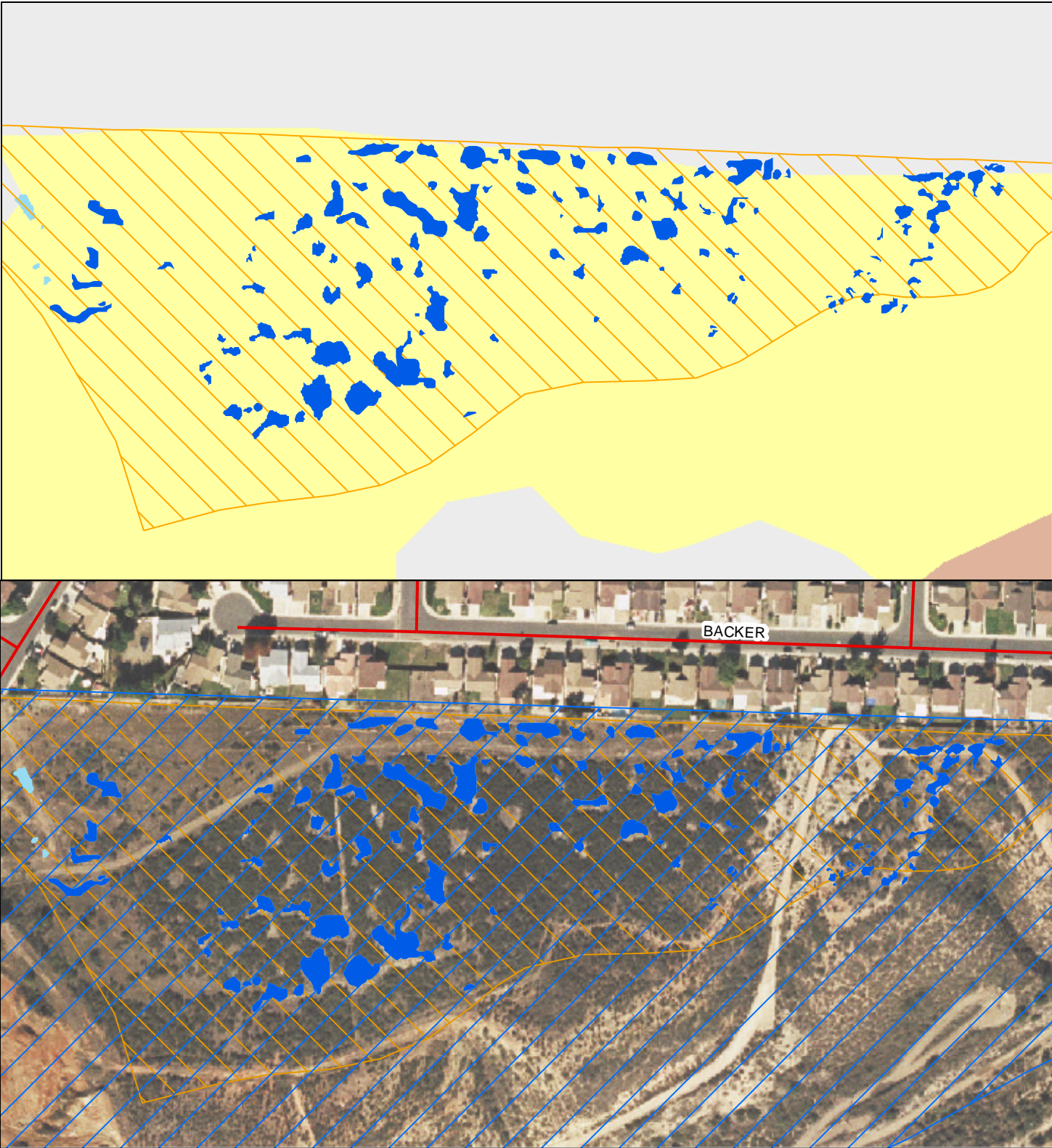
### Management Recommendations

Continue maintenance and management requirements per USFWS BOs 1-1-82-F-108 and 1-1-82-F-108R and the *Vernal Pool Management Plan* (City of San Diego, 1996). Seek funding to enhance basins in a manner appropriate to promote recovery of *N. fossalis* while maintaining or enhancing existing populations of *E. aristulatum* and *P. abramsii*. Encourage research on the effects of isolated vernal pool preserves of varying sizes.

Given the proximity of residential neighborhoods, it is recommended that educational programs be provided through local schools, Home-Owner's Associations (HOAs), community groups, etc. Topics may include the local ecosystem, including vernal pools, habitat preservation (i.e. MSCP), and should incorporate hands-on learning via neighborhood hikes, etc. Programs should strive to present information in a manner that will increase interest in the natural world and cultivate a sense of ownership of local open space, with the overall goal of developing positive neighborhood awareness of the preserve, as necessary.

Pursue enforcement of code violations by property-owners adjacent to the Preserve.

Figure 18



# Carroll Canyon (D 5-8)



- Roads
- MHPA
- Conserved Lands
- Vernal Pools at Site
- Adjacent Vernal Pools
- Chaparral
- Riparian Scrub
- Disturbed Land
- Urban/Developed

\*MHPA and Roads not shown in top map; vegetation mapping per Ogden 1997.

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### 8.1.3.k *Arjons (I 1)*

#### Site Description and Existing Conditions

Arjons (I 1) is an 8.7-acre parcel located south of Carroll Canyon along Arjons Drive in Mira Mesa. This site is privately owned and was preserved as mitigation for Miralani Business Park (EIR 80-0341 and Addendum 84-0372, USFWS BO 1-1-80-F-48) and Miramar Point PID (EIR 90-0431); however, a conservation easement was not required and a portion of the site was impacted when grading permit was subsequently issued by the City of San Diego (LDR No. 99-0508, grading permit no. W48163). The site is zoned as open space, and adjacent land uses include transportation and industrial development.

A total of 34 vernal pools (2,964 m<sup>2</sup> [0.732 acres]) were mapped at Arjons in 2003 (see also *Arjons Road Vernal Pool Evaluation and Management Recommendations* [DUDEK, 1996]). These basins are natural in origin and are underlain by Redding gravelly loam. Chamise chaparral is the dominant vegetation community in the vernal pool watersheds and other upland areas. Sensitive vernal pool species at Arjons include *E. aristulatum*, *P. abramsii* and *B. sandiegonensis*.

Historically, vernal pool basins at Arjons were impacted by off-road vehicles and construction debris. Following utilization of the site as mitigation for the Miralani Business Park (EIR 80-0341) and Miramar Point PID (EIR 90-0431), Arjons was fenced and regular maintenance was preformed by the property owner, including litter and debris removal and fence maintenance. A 1996 report noted ice plant and eucalyptus colonizing the preserve from the eastern property boundary and run-off from adjacent irrigation (DUDEK, 1996). In 1999, the City of San Diego erroneously issued a grading permit for Arjons (LDR No. 99-0508, grading permit no. W48163). This resulted in impacts to approximately one-third of the site, including eight vernal pools. The City of San Diego filed charges against the developer but the case has subsequently been dropped.

The site has been identified as necessary to reclassify the populations of *E. aristulatum* and *P. abramsii* by the adopted *Recovery Plan for Vernal Pools of Southern California* (USFWS, 1998).

#### Threats

##### *Development*

The Miralani Business Park (EIR 80-0341 and Addendum 84-0372, USFWS BO 1-1-80-F-48 [see formal correspondence dated May 16, 1980, and September 25, 1981]) and Miramar Point (EIR 90-0431) developments impacted “about 30 to 40” vernal pools that totaled an estimated 2.5 acres of basin area (USFWS, 1980). The area currently known as Arjons was set aside for conservation; however, a conservation easement was not required for the property. Approximately one-third of the property was impacted in 1999 following the erroneous issuance of a grading permit by the City of San Diego. Specific development restrictions would apply to any proposals based on the current open space zone.

##### *Invasive Species*

Eucalyptus and ice plant occur along the eastern property boundary.

### *Edge Effects*

Arjons is located within a developed area with small pockets of open space. Although fencing has added a measure of protection, edge effects such as run-off and non-native species have been noted.

### *Fire and Fire Suppression*

The site may serve as a staging area in the event of a fire; however, wildfire is unlikely due to the developed nature of the area.

### Required Management Activities

The on-site preservation option in U.S. Fish and Wildlife Service BO 1-1-80-F-48 included the following requirements:

- Invasive species shall not be used for slope stabilization on cut slopes adjacent to the preserve.
- Installation and maintenance of fencing to exclude trespass and construction activities.

### Management Recommendations

A conservation easement should be recorded against the title of the property to minimize the possibility of future development proposals.

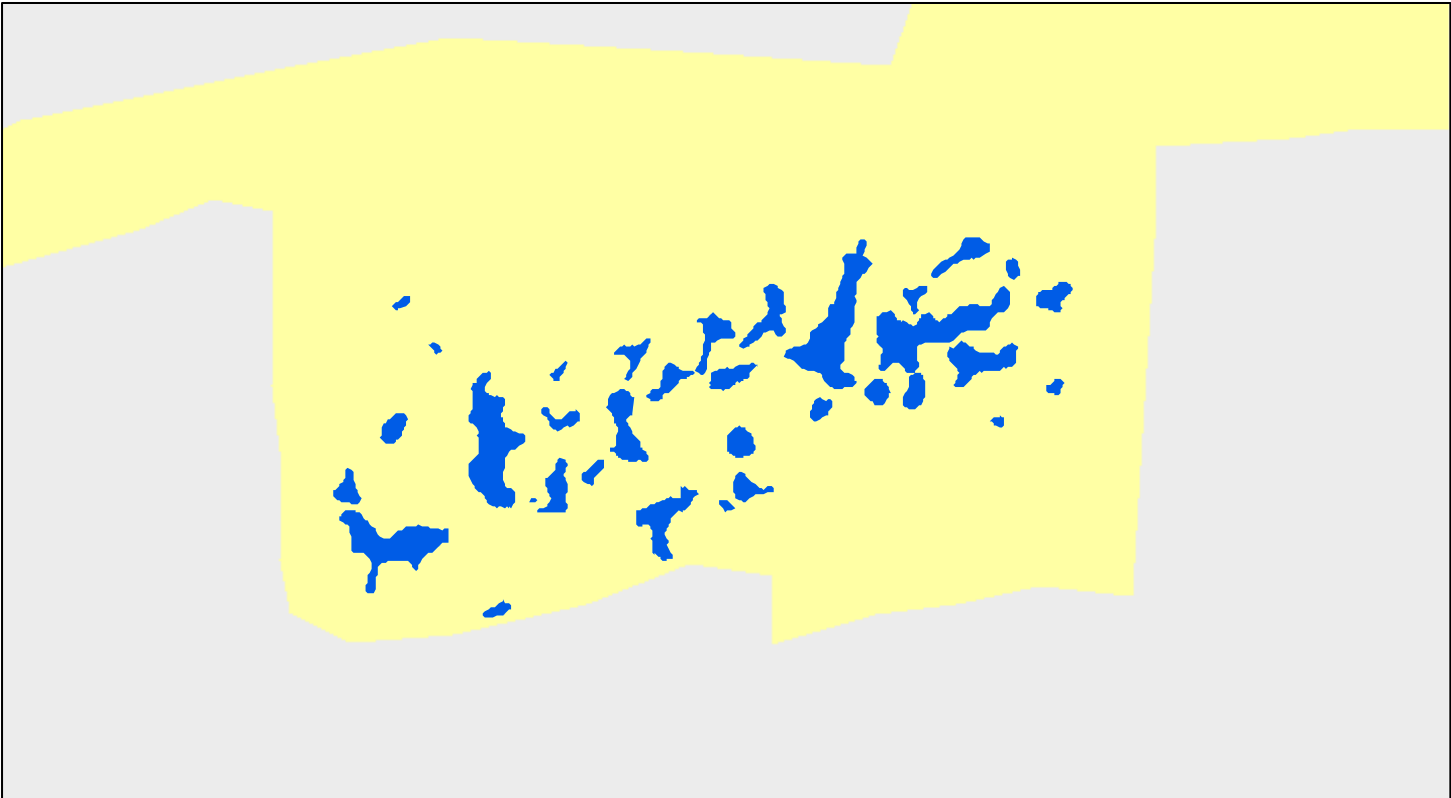
The impacts from grading in 1999 (LDR No. 99-0508, permit no. W48163) should remediate through restoration, including at least eight vernal pool basins and associated watershed and upland vegetation.

As necessary, fencing should be repaired, and litter and invasive species removed. If invasive species control measures are required, weeding within and immediately adjacent to vernal pools should be done by hand. In upland areas, mechanical removal may be necessary, however, herbicides should not be used in or adjacent to vernal pools.

Land managers should encourage research opportunities, especially relating to the long-term success of varying sizes of vernal pool preserves.



Figure 19



# Arjons (I 1)



0.025 Miles  
0.06 Kilometers

- Roads
- MHPA
- Conserved Lands
- Vernal Pools at Site
- Adjacent Vernal Pools
- Chaparral
- Urban/Developed

Note: MHPA and Roads not shown in top map; vegetation mapping per Ogden 1997.

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